



SEQUENCE LISTING

<110> Davids, Andrew Robert
Fagan, Richard Joseph
Phelps, Christopher Benjamin
Power, Christine
Chvatchko, Yolande
Boschert, Ursula

<120> Cytokine antagonist molecules

<130> 674582-2001

<140> US 10/706691
<141> 2003-11-12

<150> PCT/GB03/01851
<151> 2003-04-30

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Leu Ala Pro Phe Val Tyr Leu Leu Leu Ile Gln Thr Asp
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gcaccctgcg gcctgactat cgagaccgta tccgactctt tgaaaatggc tccctgcttc 240

tcagcgacct gcagctggcc gatgagggca cctatgaggt cgagatctcc atcaccgacg 300
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 Thr Val Gly Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser
 20 25 30
 Ser Asp Arg Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val
 35 40 45
 Thr Val Val Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro
 50 55 60
 Asp Tyr Arg Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu
 65 70 75 80
 Ser Asp Leu Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser
 85 90 95
 Ile Thr Asp Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val
 100 105 110
 Asp Val

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<400> 5
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 atggcaagcc cctcctcaat gactcgagaa tgctcctgtc ccccgaccaa aaggtgctca 180
 ccatcaccgc cgtgctcatg gaggatgacg acctgtacag ctgcatggtg gagaacccca 240
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<210> 6
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 <212> PRT
 <213> Homo sapiens

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 20 25 30

Pro Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser
 35 40 45

Arg Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val
 50 55 60

Leu Met Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile
 65 70 75 80

Ser Gln Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg
 85 90

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 <212> DNA
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 tgacagtctg tgcctgctgg aaaccctcca aaag 94

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 <212> PRT
 <213> Homo sapiens

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 cctgaaacca gaag 74

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 <211> 25
 <212> PRT
 <213> Homo sapiens

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 1 5 10 15

Asn Asp Asp Arg Leu Lys Pro Glu Ala
 20 25

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 <211> 71
 <212> DNA

<213> Homo sapiens

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tgaaggacaa g 71

<210> 12

<211> 23

<212> PRT

<213> Homo sapiens

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<211> 303

<212> DNA

<213> Homo sapiens

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tctgcccggc gctacccgcg ctcccagcg cgctcccag ccaccggccg gacacactcg 180
tcgcccga gggcccgag ctgcccggc cgctcgcgca gcgcctcgcg cacactgcgg 240
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<212> PRT

<213> Homo sapiens

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20 25 30

Arg Ser Pro Gly Leu Pro Ile Arg Ser Ala Arg Arg Tyr Pro Arg Ser
35 40 45

Pro Ala Arg Ser Pro Ala Thr Gly Arg Thr His Ser Ser Pro Pro Arg
50 55 60

Ala Pro Ser Ser Pro Gly Arg Ser Arg Ser Ala Ser Arg Thr Leu Arg
65 70 75 80

Thr Ala Gly Val His Ile Ile Arg Glu Gln Asp Glu Ala Gly Pro Val
85 90 95

Glu Ile Ser Ala
100

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 <211> 1251
 <212> DNA
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 cgcttgatcc atggcaccgt ggggaagtcg gctctgcttt ctgtgcagta cagcagtacc 180
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 cagtccattg gcacagaggt catcggcacc ctgcggcctg actatcgaga ccgtatccga 300
 ctctttgaaa atggctccct gcttctcagc gacctgcagc tggccgatga gggcacctat 360
 gaggtcgaga tctccatcac cgacgacacc ttactgggg agaagaccat caaccttact 420
 gtagatgtgc ccatttcgag gccacaggtg ttggtggctt caaccactgt gctggagctc 480
 agcgaggcct tcaccttgaa ctgctcacat gagaatggca ccaagcccag ctacacctgg 540
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 gtgctcacca tcaccgcgt gctcatggag gatgacgacc tgtacagctg catggtggag 660
 aaccccatca gccagggccg cagcctgcct gtcaagatca ccgtatacag aagaagctcc 720
 ctttacatca tcttgtctac aggaggcatc ttctccttg tgaccttggg gacagtctgt 780
 gcctgtctgga aacctccaa aaggaaacag aagaagctag aaaagcaaaa ctccctggaa 840
 tacatggatc agaatgatga ccgcctgaaa ccagaagcag acacctctcc tcgaagtggg 900
 gagcaggaac ggaagaaccc catggcactc tatatcctga aggacaagga ctccccggag 960
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 taccgcgct ccccgcgcg ctcgccagcc accggccgga cacactcgtc gccgcccagg 1140
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<210> 16
 <211> 416
 <212> PRT
 <213> Homo sapiens

<400> 16
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 Leu Ala Pro Phe Val Tyr Leu Leu Leu Ile Gln Thr Asp Pro Leu Glu
 20 25 30
 Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly
 35 40 45
 Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg
 50 55 60
 Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val
 65 70 75 80
 Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg
 85 90 95
 Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu
 100 105 110
 Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp

115					120					125					
Asp	Thr	Phe	Thr	Gly	Glu	Lys	Thr	Ile	Asn	Leu	Thr	Val	Asp	Val	Pro
130						135					140				
Ile	Ser	Arg	Pro	Gln	Val	Leu	Val	Ala	Ser	Thr	Thr	Val	Leu	Glu	Leu
145					150					155					160
Ser	Glu	Ala	Phe	Thr	Leu	Asn	Cys	Ser	His	Glu	Asn	Gly	Thr	Lys	Pro
				165					170					175	
Ser	Tyr	Thr	Trp	Leu	Lys	Asp	Gly	Lys	Pro	Leu	Leu	Asn	Asp	Ser	Arg
			180					185					190		
Met	Leu	Leu	Ser	Pro	Asp	Gln	Lys	Val	Leu	Thr	Ile	Thr	Arg	Val	Leu
	195						200					205			
Met	Glu	Asp	Asp	Asp	Leu	Tyr	Ser	Cys	Met	Val	Glu	Asn	Pro	Ile	Ser
	210					215					220				
Gln	Gly	Arg	Ser	Leu	Pro	Val	Lys	Ile	Thr	Val	Tyr	Arg	Arg	Ser	Ser
225					230					235					240
Leu	Tyr	Ile	Ile	Leu	Ser	Thr	Gly	Gly	Ile	Phe	Leu	Leu	Val	Thr	Leu
				245					250					255	
Val	Thr	Val	Cys	Ala	Cys	Trp	Lys	Pro	Ser	Lys	Arg	Lys	Gln	Lys	Lys
			260					265					270		
Leu	Glu	Lys	Gln	Asn	Ser	Leu	Glu	Tyr	Met	Asp	Gln	Asn	Asp	Asp	Arg
		275					280					285			
Leu	Lys	Pro	Glu	Ala	Asp	Thr	Leu	Pro	Arg	Ser	Gly	Glu	Gln	Glu	Arg
	290					295					300				
Lys	Asn	Pro	Met	Ala	Leu	Tyr	Ile	Leu	Lys	Asp	Lys	Asp	Ser	Pro	Glu
305					310					315					320
Thr	Glu	Glu	Asn	Pro	Ala	Pro	Glu	Pro	Arg	Ser	Ala	Thr	Glu	Pro	Gly
				325					330					335	
Pro	Pro	Gly	Tyr	Ser	Val	Ser	Pro	Ala	Val	Pro	Gly	Arg	Ser	Pro	Gly
			340					345					350		
Leu	Pro	Ile	Arg	Ser	Ala	Arg	Arg	Tyr	Pro	Arg	Ser	Pro	Ala	Arg	Ser
		355					360					365			
Pro	Ala	Thr	Gly	Arg	Thr	His	Ser	Ser	Pro	Pro	Arg	Ala	Pro	Ser	Ser
	370					375					380				
Pro	Gly	Arg	Ser	Arg	Ser	Ala	Ser	Arg	Thr	Leu	Arg	Thr	Ala	Gly	Val
385					390					395					400
His	Ile	Ile	Arg	Glu	Gln	Asp	Glu	Ala	Gly	Pro	Val	Glu	Ile	Ser	Ala
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<210> 17
 <211> 1257
 <212> DNA
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 gtgctcacca tcacccgagt actcatggaa gatgacgacc tgtacagctg tgtggtggag 660
 aaccccatca gccagggtccg cagcctgcct gtcaagatca ctgtgtatag aagaagctcc 720
 ctctatatca tcttgtctac aggaggcatc ttctccttg tgaccctggg gacagtttgt 780
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<210> 18
 <211> 418
 <212> PRT
 <213> Homo sapiens

<400> 18
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 20 25 30
 Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly
 35 40 45
 Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Lys
 50 55 60
 Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val
 65 70 75 80
 Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg
 85 90 95
 Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu
 100 105 110
 Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp
 115 120 125

Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
 130 135 140
 Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
 145 150 155 160
 Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro
 165 170 175
 Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg
 180 185 190
 Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu
 195 200 205
 Met Glu Asp Asp Asp Leu Tyr Ser Cys Val Val Glu Asn Pro Ile Ser
 210 215 220
 Gln Val Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser
 225 230 235 240
 Leu Tyr Ile Ile Leu Ser Thr Gly Gly Ile Phe Leu Leu Val Thr Leu
 245 250 255
 Val Thr Val Cys Ala Cys Trp Lys Pro Ser Lys Lys Ser Arg Lys Lys
 260 265 270
 Arg Lys Leu Glu Lys Gln Asn Ser Leu Glu Tyr Met Asp Gln Asn Asp
 275 280 285
 Asp Arg Leu Lys Ser Glu Ala Asp Thr Leu Pro Arg Ser Gly Glu Gln
 290 295 300
 Glu Arg Lys Asn Pro Met Ala Leu Tyr Ile Leu Lys Asp Lys Asp Ser
 305 310 315 320
 Ser Glu Pro Asp Glu Asn Pro Ala Thr Glu Pro Arg Ser Thr Thr Glu
 325 330 335
 Pro Gly Pro Pro Gly Tyr Ser Val Ser Pro Pro Val Pro Gly Arg Ser
 340 345 350
 Pro Gly Leu Pro Ile Arg Ser Ala Arg Arg Tyr Pro Arg Ser Pro Ala
 355 360 365
 Arg Ser Pro Ala Thr Gly Arg Thr His Thr Ser Pro Pro Arg Ala Pro
 370 375 380
 Ser Ser Pro Gly Arg Ser Arg Ser Ser Arg Ser Leu Arg Thr Ala
 385 390 395 400
 Gly Val Gln Arg Ile Arg Glu Gln Asp Glu Ser Gly Gln Val Glu Ile
 405 410 415

Ser Ala

<210> 19
 <211> 720
 <212> DNA
 <213> Homo sapiens

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 cgcctgatcc atggcaccgt ggggaagtgc gctctgcttt ctgtgcagta cagcagtacc 180
 agcagcgaca ggcctgtagt gaagtggcag ctgaagcggg acaagccagt gaccgtgggtg 240
 cagtccattg gcacagaggt catcggcacc ctgcggcctg actatcgaga ccgtatccga 300
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 ctgaaggatg gcaagcccct cctcaatgac tcgagaatgc tctgtcccc cgaccaaag 600
 gtgctcacca tcaccgcgt gctcatggag gatgacgacc tgtacagctg catggtggag 660
 aaccccatca gccagggccg cagcctgcct gtcaagatca ccgtatacag aagaagctcc 720

<210> 20
 <211> 240
 <212> PRT
 <213> Homo sapiens

<400> 20
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 Leu Ala Pro Phe Val Tyr Leu Leu Leu Ile Gln Thr Asp Pro Leu Glu
 20 25 30
 Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly
 35 40 45
 Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg
 50 55 60
 Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val
 65 70 75 80
 Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg
 85 90 95
 Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu
 100 105 110
 Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp
 115 120 125
 Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
 130 135 140
 Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
 145 150 155 160
 Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro

	165		170		175
Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg					
	180		185		190
Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu					
	195		200		205
Met Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser					
	210		215		220
Gln Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser					
	225		230		235
					240

<210> 21
 <211> 621
 <212> DNA
 <213> Homo sapiens

<400> 21

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gacaagccag tgaccgtggt gcagtccatt ggcacagagg tcatcggcac cctgcggcct	180
gactatcgag accgtatccg actctttgaa aatggctccc tgcttctcag cgacctgcag	240
ctggccgatg agggcaccta tgaggtcgag atctccatca ccgacgacac cttcactggg	300
gagaagacca tcaaccttac tgtagatgtg cccatttcga ggccacaggt gttggtggct	360
tcaaccactg tgctggagct cagcgaggcc ttcaccctga actgctcaca tgagaatggc	420
accaagccca gctacacctg gctgaaggat ggcaagcccc tcctcaatga ctcgagaatg	480
ctcctgtccc ccgacaaaaa ggtgctcacc atcaccgcgc tgctcatgga ggatgacgac	540
ctgtacagct gcatggtgga gaaccccatc agccagggcc gcagcctgcc tgtcaagatc	600
accgtataca gaagaagctc c	621

<210> 22
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 22

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Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg Pro	
20	30
Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val Gln	
35	45
Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg Asp	
50	60
Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu Gln	
65	80
Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp Asp	
85	95

Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro Ile
 100 105 110

Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu Ser
 115 120 125

Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro Ser
 130 135 140

Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg Met
 145 150 155 160

Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu Met
 165 170 175

Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser Gln
 180 185 190

Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser
 195 200 205

<210> 23
 <211> 328
 <212> DNA
 <213> Homo sapiens

<400> 23
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 tctgtgcagt acagcagtag cagcagcgac aggcctgtag tgaagtggca gctgaagcgg 120
 gacaagccag tgaccgtggg gcagtcatt ggcacagagg tcatcggcac cctgcggcct 180
 gactatcgag accgtatccg actctttgaa aatggctccc tgcttctcag cgacctgcag 240
 ctggccgatg agggcaccta tgaggtcgag atctccatca ccgacgacac cttcactggg 300
 gagaagacca tcaaccttac ttagatg 328

<210> 24
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 24
 Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly Lys
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Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg Pro
 20 25 30

Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val Gln
 35 40 45

Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg Asp
 50 55 60

Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Ser Asp Leu Gln
 65 70 75 80

Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp Asp
 85 90 95

Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val
 100 105 110

<210> 25
 <211> 1152
 <212> DNA
 <213> Homo sapiens

<400> 25
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 gacaagccag tgaccgtggg gcagtcattt ggcacagagg tcatcggcac cctgcggcct 180
 gactatcgag accgtatccg actctttgaa aatggctccc tgcttctcag cgacctgcag 240
 ctggccgatg agggcaccta tgaggtcgag atctccatca ccgacgacac cttcactggg 300
 gagaagacca tcaaccttac tgtagatgtg cccatttcga ggccacaggt gttgggtggc 360
 tcaaccactg tgctggagct cagcgaggcc ttcaccttga actgctcaca tgagaatggc 420
 accaagccca gctacacctg gctgaaggat ggcaagcccc tcctcaatga ctcgagaatg 480
 ctctgtccc ccgacaaaaa ggtgctcacc atcaccgcg tgctcatgga ggatgacgac 540
 ctgtacagct gcatgggtgga gaaccccatc agccagggcc gcagcctgcc tgtcaagatc 600
 accgtatata gaagaagctc cctttacatc atcttgtcta caggaggcat cttcctcctt 660
 gtgaccttgg tgacagtctg tgcctgctgg aaacctcca aaaggaaaca gaagaagcta 720
 gaaaagcaaa actccctgga atacatggat cagaatgatg accgcctgaa accagaagca 780
 gacaccctcc ctcgaagtgg tgagcaggaa cggaagaacc ccatggcact ctatatcctg 840
 aaggacaagg actccccgga gaccgaggag aaccgcggcc cgagcctcg aagcgcgacg 900
 gagcccgcc cgcccgcta ctccgtgtct cccgcctgct ccggccgctc gccggggctg 960
 cccatccgct ctgcccgcg ctaccgcgc tccccagcgc gctccccagc caccggccgg 1020
 acacactcgt cgccgcccag ggcccgcgc tcgcccggcc gctcgcgcag cgcctcgcgc 1080
 aactgcccga ctgcccggcg gcacataatc cgcgagcaag acgaggccgg cccggtggag 1140
 atcagcgct ga 1152

<210> 26
 <211> 383
 <212> PRT
 <213> Homo sapiens

<400> 26
 Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly Lys
 1 5 10 15
 Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg Pro
 20 25 30
 Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val Gln
 35 40 45
 Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg Asp
 50 55 60
 Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu Gln
 65 70 75 80
 Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp Asp
 85 90 95
 Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro Ile
 100 105 110

<220>
 <223> GCP Forward Primer

 <400> 27
 ggggacaagt ttgtacaaaa aagcaggctt cgccacc 37

 <210> 28
 <211> 51
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> GCP Reverse Primer

 <400> 28
 ggggaccact ttgtacaaga aagctggggt tcaatgggtga tggatgatggt g 51

 <210> 29
 <211> 41
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> INSP052-B1P-exon1F Primer

 <400> 29
 gcaggcttcg ccaccatgaa gagagaaagg ggagccctgt c 41

 <210> 30
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> INSP052-exon1R Primer

 <400> 30
 tcacccccctc caggggggtct gtctggatca gaagaa 36

 <210> 31
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> INSP052-exon2F Primer

 <400> 31
 ttctttctgat ccagacagac cccctggagg ggggtga 36

 <210> 32
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> INSP052-exon2R Primer

<400>	32	
gtggcctcga aatgggcaca tctacagtaa ggttga		36
<210>	33	
<211>	36	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
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<400>	33	
caaccttact gtagatgtgc ccatttcgag gccaca		36
<210>	34	
<211>	32	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	INSP052-exon3R Primer	
<400>	34	
ggagcttctt ctgtatacgg tgatcttgac ag		32
<210>	35	
<211>	35	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	INSP052-5HIS-R Primer	
<400>	35	
gtgatgggtga tgggtgggagc ttcttctgta tacgg		35
<210>	36	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	pEAK12-F Primer	
<400>	36	
gccagcttgg cacttgatgt		20
<210>	37	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	pEAK12-R Primer	
<400>	37	

gatggagggtg gacgtgtcag

20

<210> 38
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> pENTR-F1 Primer

<400> 38
tcgcggttaac gctagcatgg atctc

25

<210> 39
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> pENTR-R1 Primer

<400> 39
gtaacatcag agatttttgag acac

24

<210> 40
<211> 2024
<212> DNA
<213> Homo sapiens

<400> 40
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gtctaccttc ttctgatcca gacagacccc ctggaggggg tgaacatcac cagccccgtg 120
cgctgatcc atggcaccgt ggggaagtgc gctctgcttt ctgtgcagta cagcagtacc 180
agcagcgaca ggcctgtagt gaagtggcag ctgaagcggg acaagccagt gaccgtgggtg 240
cagtccattg gcacagaggt catcggcacc ctgcggcctg actatcgaga ccgtatccga 300
ctctttgaaa atggctccct gcttctcagc gacctgcagc tggccgatga gggcacctat 360
gaggtcgaga tctccatcac cgacgacacc ttcactgggg agaagaccat caaccttact 420
gtagatgtgc ccatttcgag gccacaggtg ttggtggctt caaccactgt gctggagctc 480
agcgaggcct tcaccttgaa ctgctcacat gagaatggca ccaagcccag ctacacctgg 540
ctgaaggatg gcaagcccct cctcaatgac tcgagaatgc tcctgtcccc cgaccaaag 600
gtgctcacca tcacccgcgt gctcatggag gatgacgacc tgtacagctg catggtggag 660
aaccatca gccagggccg cagcctgcct gtcaagatca ccgtatacag aagaagctcc 720
ctttacatca tcttgtctac aggaggcatc ttctccttg tgaccttggg gacagtctgt 780
gcctgctgga aaccctcaa aaggaaacag aagaagctag aaaagcaaaa ctccctggaa 840
tacatggatc agaattgatga ccgcctgaaa ccagaagcag acaccctccc tcgaagtggg 900
gagcaggaac ggaagaaccc catggcactc tatatcctga aggacaagga ctccccggag 960
accgaggaga acccggtccc ggagcctcga agcgcgacgg agcccggtcc gcccggtac 1020
tccgtgtctc ccgcctgtgc cgcccgctcg ccggggctgc ccatccgctc tgcccgccgc 1080
taccgcgct cccagcgcg ctccccagcc accggccgga cacactcgtc gccgcccagg 1140
gccccgagct cgcccggtcc ctcgcgagc gcctcgcgca cactgcggac tgcgggctgtg 1200
cacataatcc gcgagcaaga cgaggccggc ccggtggaga tcagcgctg agccgcctcg 1260
gatcccctga gaggcgccc cggtctgcgg ccagtggccc gggggaaagc tggggctggg 1320
aagcccgggc gcggcgcgct ggggacgagg ggaggtccc gggggcgct ggtgtctcgg 1380
gtgtgaacgt gtatgagcat gcgcagacgg aggcgggtgc gcggaggcgg cagtgttgat 1440
atggtgaaac cgggtcgcat ttgcttccgg tttactggct gtgtcctcac ttggtatagg 1500
ttgtgcctc ttaggaccac atagattatt acatttctgg cccaataccc aaaagggttt 1560
tatggaaaact aacatcagta acctaacccc cgtgactatc ctgtgtctct cctagggagc 1620

tgtgttgttt	ccccccacc	acccttcct	ctgaacaaat	gcctgagtgc	tggggcactt	1680
tttttttttt	tttttttttt	tttttttttg	caagttcaga	ttagagaggg	cactttccca	1740
gaatccacag	ctgcactaag	ctaaggagaa	gccagatgcc	ggttactggg	tgtgcagggg	1800
ctgttctgag	ctgggggggat	cattgtgaag	gccttcttcc	ctgggcacct	ggtacctggg	1860
gacctacaag	gtgggtgagg	aagggtacga	gtacattcct	tttccctctg	acctggggcg	1920
tagcaagggc	aaagaacccg	agcctgccag	cttggcctcc	tcccacagcc	tccctcggag	1980
gcattgccatg	ccaagcactc	tttctgtctc	tgttcatgaa	taaa		2024

<210> 41
 <211> 416
 <212> PRT
 <213> Homo sapiens

<400> 41
 Met Lys Arg Glu Arg Gly Ala Leu Ser Arg Ala Ser Arg Ala Leu Arg
 1 5 10 15
 Leu Ala Pro Phe Val Tyr Leu Leu Leu Ile Gln Thr Asp Pro Leu Glu
 20 25 30
 Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly
 35 40 45
 Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg
 50 55 60
 Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val
 65 70 75 80
 Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg
 85 90 95
 Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu
 100 105 110
 Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp
 115 120 125
 Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
 130 135 140
 Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
 145 150 155 160
 Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro
 165 170 175
 Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg
 180 185 190
 Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu
 195 200 205
 Met Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser
 210 215 220
 Gln Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser

225	230	235	240
Leu Tyr Ile Ile	Leu Ser Thr Gly Gly	Ile Phe Leu Leu Val Thr Leu	
	245	250	255
Val Thr Val Cys Ala Cys Trp Lys	Pro Ser Lys Arg Lys Gln Lys Lys		
	260	265	270
Leu Glu Lys Gln Asn Ser Leu Glu Tyr Met Asp	Gln Asn Asp Asp Arg		
	275	280	285
Leu Lys Pro Glu Ala Asp Thr Leu Pro Arg Ser	Gly Glu Gln Glu Arg		
	290	295	300
Lys Asn Pro Met Ala Leu Tyr Ile Leu Lys Asp	Lys Asp Ser Pro Glu		
305	310	315	320
Thr Glu Glu Asn Pro Ala Pro Glu Pro Arg Ser	Ala Thr Glu Pro Gly		
	325	330	335
Pro Pro Gly Tyr Ser Val Ser Pro Ala Val Pro	Gly Arg Ser Pro Gly		
	340	345	350
Leu Pro Ile Arg Ser Ala Arg Arg Tyr Pro Arg	Ser Pro Ala Arg Ser		
	355	360	365
Pro Ala Thr Gly Arg Thr His Ser Ser Pro Pro	Arg Ala Pro Ser Ser		
	370	375	380
Pro Gly Arg Ser Arg Ser Ala Ser Arg Thr Leu	Arg Thr Ala Gly Val		
385	390	395	400
His Ile Ile Arg Glu Gln Asp Glu Ala Gly Pro	Val Glu Ile Ser Ala		
	405	410	415

<210> 42
 <211> 860
 <212> DNA
 <213> Homo sapiens

<400> 42	
acaagtttgt acaaaaaagc aggccttcgcc accatgaaga gagaaagggg agccctgtcc	60
agagcctcca gggccctgcg ccttgctcct tttgtctacc ttcttctgat ccagacagac	120
cccctggagg ggggtgaacat caccagcccc gtgcgcctga tccatggcac cgtggggaag	180
tcggctctgc tttctgtgca gtacagcagt accagcagcg acaggcctgt agtgaagtgg	240
cagctgaagc gggacaagcc agtgaccgtg gtgcagtcca ttggcacaga ggtcatcggc	300
acctgcgggc ctgactatcg agaccgtatc cgactctttg aaaatggctc cctgcttctc	360
agcgacctgc agctggccga tgagggcacc tatgaggtcg agatctccat caccgacgac	420
accttcactg gggagaagac catcaacctt actgtagatg tgccccatttc gaggccacag	480
accttcactg gggagaagac catcaacctt actgtagatg tgccccatttc gaggccacag	540
gtgttggtgg cttcaaccac tgtgctggag ctcagcgagg ccttcacctt gaactgctca	600
catgagaatg gcaccaagcc cagctacacc tggctgaagg atggcaagcc cctcctcaat	660
gactcgagaa tgctcctgtc ccccgaccaa aaggtgctca ccatcacccg cgtgctcatg	720
gaggatgacg acctgtacag ctgcatggtg gagaaccca tcagccaggg ccgcagcctg	780
cctgtcaaga tcaccgtata cagaagaagc tcccaccatc accatcacca ttgaaaccca	840
gctttcttgt acaaaagtggt	860

<210> 43
 <211> 246
 <212> PRT
 <213> Homo sapiens

<400> 43
 Met Lys Arg Glu Arg Gly Ala Leu Ser Arg Ala Ser Arg Ala Leu Arg
 1 5 10 15
 Leu Ala Pro Phe Val Tyr Leu Leu Leu Ile Gln Thr Asp Pro Leu Glu
 20 25 30
 Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly
 35 40 45
 Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg
 50 55 60
 Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val
 65 70 75 80
 Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg
 85 90 95
 Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu
 100 105 110
 Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp
 115 120 125
 Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
 130 135 140
 Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
 145 150 155 160
 Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro
 165 170 175
 Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg
 180 185 190
 Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu
 195 200 205
 Met Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser
 210 215 220
 Gln Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser
 225 230 235 240
 His His His His His His
 245